S/137/62/000/003/113/191
A060/A101

AUTHORS: Presnyakov, A. A., Dautova, L. I., Klyuchnikov, Yu. F.

TITLE: On the anomalies in the electrical resistance of brasses and aluminum bronzes

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 14, abstract 3I92 ("Tr. In-ta yadern. fiz. AN KazSSR", 1961, 4,69-73)

TEXT: A determination was carried out of the dependence of ρ upon the temperature and duration of tempering of hardened specimens of alloys with 5 - 38% Zn and 1 - 6% Al (the remainder - Cu). The specimens were hardened from 800°C in ice water and subjected to tempering at 100 - 600°C for durations of 10 min to 12 hours. It was established that the anomalies of the mechanical and physical characteristics of the α-solutions of Zn in Cu were caused by the ordering process. The maximum ordering occurs at a Zn content of ~10 and 30%. The ordering process is preceded by the appearance of the K-state in the case of a long tempering of hardened alloys at 200 - 300°C. The appearance of the K-state and the ordering process are also observed in Al-bronzes. The homogeneous aging of unsaturated solid solutions, observed in brasses and Al-bronzes represents

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On the anomalies in the electrical resistance ... S/137/62/000/003/113/191
A060/A101

a re-arrangement of the crystal lattice as result of the spontaneous ordering (or artificial aging) after hardening from high temperatures. In the authors' opinion the presence of transition elements in the solution is not required for the rise of the K-state. There are 14 references. See RZhMet, 1961, 5Zh44.

I. Strebkov

[Abstracter's note: Complete translation]

Card 2/2

S/058/62/000/006/095/135
A057/A101

AUTHORS: Presnyakov, A. A., Dautova, L. I., Klyuchnikov, Yu. F.

TITLE: On anomalies in the electric resistance of brass and aluminum bronze

PERIODICAL: Referativnyy zhurnal, Fizika, no. 6, 1962, 57, abstract 6E440 ("Tr. In-ta yadern. fiz. AN KazSSR", 1961, v. 4, 69 - 73)

TEXT: The electric resistance ρ of brass samples containing 5 - 38% Zn and of bronze samples with 1 - 6% Al was measured, in dependence on temperature and duration of tempering, to explain the nature of transformations in Cu-Zn alloys occurring with the change of various properties. The observed anomalies of ρ are connected with the relieving of thermal deformations, the formation of the K-state and with ordering processes, which are preceded by the appearance of the K-state.

A. Kikoin

[Abstracter's note: Complete translation]

Card 1/1

S/137/62/000/003/136/191
A052/A101

17.1220

AUTHORS: Klyuchnikov. Yu. F., Presnyakov, A. A.

TITLE: The anomalies of electrical resistance of Cu-Ni alloys

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 56, abstract 3I356 ("Tr. In-ta yadern. fiz. AN KazSSR", no. 4, 1961, 74-77)

TEXT: The change of the specific electrical resistance after tempering at 100 - 600°C of 15 min. to 12 hours' duration was studied on alloys containing 5 - 50% Ni and water quenched at 850°C. For alloys with 5 - 30% Ni the electrical resistance changes slightly up to 300°C, afterwards it increases rapidly at the tempering up to 600°C; over 600°C the increase of electrical resistance becomes slower and sometimes disappears. This fact is connected with the emergence at temperatures of over 300°C of the short-range order (K-state) which disappears at temperatures over 600°C. Alloys with 40 and 50% Ni at tempering at 400°C display the minimum electrical resistance which points to the emergence of the ordering which disappears at temperatures up to 600°C. For the alloy with 40% Ni this effect is expressed more strongly. The decrease of electrical resistance

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The anomalies of electrical resistance ...

S/137/62/000/003/136/191
A052/A101

is preceded by its sharp increase which is connected with the emergence of the K-state. Apparently the K-state precedes any process of ordering.

L. Gomozov

[Abstracter's note: Complete translation]

Card 2/2

S/137/62/000/003/051/19:
A006/A101

12 2500

AUTHORS: Nasynbayev, G. N., Presnyakov, A. A.

TITLE: On the effect of the crystallization rate on the structure and properties of technically pure metals

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 26, abstract 30172 (Tr. In-ta yadern. fiz. AN KazSSR, 1961, v. 4, 78 - 84)

TEXT: The authors investigated the effect of the rate of crystallization of Al (grade АВ00 [AV00]), Cu (M0), Zn (Ц0 [Ts0]), Sn (01), Sb (Су0 [Su0]), Pb (С1 [S1]), and Mg (Mg1), on their structure and properties. It is shown that microhardness of quenched specimens is below that of slowly cooled samples. Changes in the crystallization rate cause changes in the structure and properties of technically pure metals, since at a high rate the admixtures form metastable solid solutions with the metal. The results are tabulated, and photographs of microsections and radiographs are given.

A. Tseydler

[Abstracter's note: Complete translation]

Card 1/1

S/137/62/000/004/084/201
A052/A101

AUTHORS: Presnyakov, A. A., Gorban', Yu. A., Chervyakova, V. V.

TITLE: On the constitution diagram of Al-Zn

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 4, 1962, 9, abstract 4I61 ("Tr. In-ta yadern. fiz. AN KazSSR", no. 4, 1961, 85 - 88)

TEXT: The constitution diagram of the Al-Zn system in the range from 60 to 80% Zn was studied with the purpose of its closer specifying. As initial materials Al of A0C (A00) grade and Zn of ЦВ (TsV) grade were taken. After casting into a graphite mold the alloys were homogenized during 168 hours at 350°C, deformed by 50%, annealed two hours at 350°C and cooled with the furnace. The investigation was carried out by the temperature X-ray diffraction analysis method. It is shown that in the Al-Zn system there is a peritectic transformation at ~443°C, a β-phase exists, of a different nature from α-phase, with a break of solubility, an eutectoid decomposition $\alpha' \rightarrow \alpha + \beta$ develops at ~340°C with the eutectoid point at ~70% Zn. There are 12 references. See also RZhMet, 1961, 11Zh132.

[Abstracter's note: Complete translation] Z. Rogachevskaya

Card 1/1

36451
S/137/62/000/003/135/191
A052/A101

18.1220

AUTHORS: Chernousova, K. T., Presnyakov, A. A.

TITLE: The effect of vanadium on the structure and properties of alloys on the copper base

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 56, abstract 3I355 ("Tr. In-ta yadern. fiz. AN KazSSR, no. 4, 1961, 89-94)

TEXT: The alloys of Cu with Sn, Al or Ni with an addition of 0.1 - 1.0% V were smelted in Be oxide crucibles in the induction vacuum furnace, forged on heating up to 600 - 700°C, and annealed during 50 hours at. 800°C. The microstructure analysis and the measurement of hardness and microhardness of alloys (60 - 120 imprints per sample) have established that V does not intermix with Cu in the liquid state; in the presence of V the solubility of Al and Ni in Cu decreases, and the ductility of alloys becomes several times lower; V is not a promising addition to Cu-alloys.

K. Povarova

[Abstracter's note: Complete translation]

Card 1/1

PRESNYAKOV, P.V.

Experience gained from sowing sugar beets for seeds without transplanting. Sakh.prom.30 no.6:47-50 Je '56. (MLRA 9:9)

1.Kaganovichskaya opytno-selektsionnaya stantsiya.
(Sugar beets)

PRESNYAKOV, P. V.

29871. Presnyakov, P. V. Raboty po agrotedhnike sakharnoy svekly v kirgizil. Sbornik nauch. Rabot (Vsesoyuz. nauch. -issled. in-T sakhar. svekly). Kiyer-khar'kov 1948, s. 192-202/

SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva, 1949.

PRESNYAKOV, V.K., dotsent, kand. tekhn. nauk

Balancing the inertia of the moving mass of a VKG-22 screen by means of unbalance. Nauch. dokl. vys. shkoly; gor. delo no.1: 221-226 '59. (MIRA 12:5)

1. Predstavlena kafedroy obogashcheniya poleznykh iskopayemykh Donetskogo industrial'nogo instituta im. N.S. Khrushcheva.
(Screens (Mining)) (Balancing of machinery)

PRESNYAKOV, V.K., dots., kand.tekhn.nauk; GRIN'KO, V.R., inzh.

Vibrations of a shaking screen with inertia vibrators. Nauch. dokl. vys. shkoly; gor. delo no.3:241-247 '58. (MIRA 11:9)

1.Predstavlena kafedroy obogashcheniya poleznykh iskopayemykh Donetskogo industrial'nogo instituta.
(Screen (Mining)) (Vibrators)

MOLONOV, G.D.; KUZNETSOV, A.F.; PRESNYAKOV, V.M.

Nonmetallic inclusions in capped steel. Izv. vys. ucheb. zav.; chern. met. 7 no.2:56-57 '64. (MIRA 17:3)

1. Zhdanovskiy metallurgicheskiy institut.

PRESNYAKOV, V.M., inzh.

Improved water cooling system of inside port butts in "Azovstal'" Plant tilting open-hearth furnaces. Sbor.nauch.trud.Zhdan.met. inst. no.4:47-50 '57. (MIRA 11:11)
(Zhdanov--Open-hearth furnaces--Cooling)

3/137/60/000/009/021/026
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No. 9, p. 259.
21608

AUTHOR: Presnyakov, V.M.

TITLE: The Effect of Manganese on the Mechanical Properties of Silicon-Free Steel

PERIODICAL: Sb. nauchn. tr. Zhdanovsk. metallurg. in-t, 1960, No. 5, pp. 295-301

TEXT: The author studied the effect of changes in the Mn content on the mechanical properties (σ_b, σ_s, δ) of silicon-free steel with 0.15-0.17% C, produced in a 50-kg basic electric-arc furnace. It was established that a higher Mn content in the steel, raised from 0.44 to 1.68%, caused an increase of σ_b (from 47 to 57 kg/mm^2), and σ_s (from 26 to 37 kg/mm^2) and a reduction of δ (from 27 to 19%). There are 11 references.

T.F.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

SOV/137-58-8-16509

Translation from: Referativnyy zhurnal, Metallurgiya 1958, Nr 8, p 39 (USSR)

AUTHOR: Presnyakov, V.M.

TITLE: Improved Water Cooling for the Internal Surfaces of Nozzles in Tilting Open-hearth Furnaces of the "Azovstal'" Plant (Usovershenstvovaniye vodyanogo okhlazhdeniya vnutrennikh tortsov golovok kachayushchikhsya martenovskikh pechey zavoda "Azovstal'")

PERIODICAL: Sb. nauchn. tr. Zhdanovsk. metallurgich. in-t, 1957, Nr 4, pp 47-50

ABSTRACT: A description of a novel design of upper semi-rings (SR) employed for cooling of the faces of the hearth and of nozzles in the tilting furnaces of the "Azovstal'" plant. Since 1954, the cooling SR have been manufactured from two thick-walled curved tubes, with an internal diameter of 86 mm and a wall thickness of 14 mm without subsequent casting in cast iron. As a result of this procedure the cost of the SR was drastically reduced and their weight was diminished by 90%, the usable service life was extended beyond 300 smeltings, while the productivity of the furnaces increased as a result of the reduction of down time necessitated by replacement of the SR. G.G.

Card 1/1

1. Nozzles--Cooling 2. Open hearth furnaces--Equipment
3. Open hearth furnaces--Performance

LEPORSKIY, V.V., inzh.; PETROV, S.S., inzh.; PRESNYAKOV, V.M., inzh.; KAZANTSEV, I.G., prof.

Mass production of semi-killed steel for the manufacture of mine supports [with summary in English]. Stal' 18 no.8:702-706 Ag '58. (MIRA 11:8)

1.Zavod "Azovstal" i Zhdanovskiy metallurgicheskiy institut.
(Steel--Metallurgy) (Rolling (Metalwork))

PRESNYAKOV, V.M., inzh.

Properties of silicon-free steel with a high manganese content.
Izv. vys. ucheb. zav.; chern.met. no.5:33-39 My '58. (MIRA 11:7)

1.Zhdanovskiy metallurgicheskiy institut.
(Manganese steel) (Silicon)

SOV/133-58-8-7/30

AUTHORS: Leporskiy, V.V., Petrov, S.S. and Presnyakov, V.M., Engineers, Kazantsev, I.G., Professor

TITLE: Mass Production of Semi-killed Steel for Manufacturing Mine Supports (Massovoye proizvodstvo poluspokoynoy stali dlya shakhtnogo krepleniya)

PERIODICAL: Stal', 1958, Nr 8, pp 702 - 706 + 1 plate (USSR)

ABSTRACT: Experience gained in the large-scale production of semi-killed steel for rolling profiles for the manufacture of mine supports is discussed. For a long time, a killed steel, St5, was smelted for the purpose (GOST 380-50). In order to increase the yield of rolled products in 1955, the above steel was replaced by a semi-killed steel of the following composition: C 0.28-0.37%, Si - traces, Mn 0.70-1.10%, S $\leq$0.055, P $\leq$0.050. Smelting of the steel was carried out in 350-ton open-hearth furnaces with basic roofs fired with a mixture of coke-oven and blast-furnace gas. The proportion of hot metal 70-75%. Oxygen additions to flame and to the bath were used during smelting. The deoxidation of metal is done in the furnace with 3.5 - 4.0 t of blast-furnace ferromanganese so as to obtain 0.8-1.0% of manganese in the finished metal. Final deoxidation is done in the ladle with an average of

Card1/3

20 g/t of aluminium. The total duration of the heat 11 - 13 hours. Changes in the composition of metal and slag in the course of the heat are shown in Figure 1. Steel is bottom-poured in 7-ton ingots. Rolling of ingots is carried out in the same way as for rimming steel. Crop heads do not exceed 5%. The influence of carbon and manganese content on the mechanical properties of steel was investigated by the statistical analysis of data for 518 heats. The results are shown in Table 2 and Figure 2. Conclusions: 1) the possibility of replacing St5 steel by semi-killed steel not containing silicon but about 1% of manganese was established. 2) Smelting and teeming of this steel is simple and similar to that of rimming steel. 3) The most economical method of deoxidation of the steel is by an addition of blast-furnace ferrosilicon to the furnace and partially into the ladle with an addition to the ladle of aluminium (30 g/t). Ferrosilicon is not used. 4) Heating and rolling conditions for the steel are the same as for rimming steel. 5) By replacing killed steel by the semi-killed steel, the coefficient of the consumption of metal decreased from 1.257 to 1.146,

Mass Production of Semi-killed Steel for Manufacturing Mine Supports

equivalent to the economy of 111 kg/t of ingots. 6) The quality of the surface of ingots, blooms and finished products from semi-killed steel is quite satisfactory. 7) Mechanical properties of mine supports correspond to requirements of standards for killed steel, St5 (GOST 380-50). There are 2 tables, 2 figures and 4 references, 2 of which are Soviet and 2 English.

ASSOCIATIONS: Zavod "Azovstal'" ("Azovstal" Works) and Zhdanovskiy metallurgicheskiy institut (Zhdanov Metallurgical Institute)

Card3/3 1. Steel--Production 2. Steel--Applications 3. Underground structures--Materials

TKACHUK, V.G., otv.red.; PRESNYAKOV, Ye.A., red.; SHUVALOV, P.A., red.; SOROKINA, T.I., tekhn.red.

[Studies on underground waters in Eastern Siberia] Materialy po podzemnym vodam Vostochnoi Sibiri. Irkutskoe knizhnoe izd-vo, 1957. 180 p. (MIRA 12:5)

1. Akademiya nauk SSSR. Vostochno-Sibirskiy filial, Irkutsk. 2. Institut geologii Vostochno-Sibirskogo filiala AN SSSR; Irkutskoye geologicheskoye upravleniye Ministerstva geologii i okhrany nedr SSSR (for Tkachuk). 3. Irkutskiy gosudarstvennyy universitet im. A.A.Zhdanova (for Presnyakov).
(Siberia, Eastern--Water, Underground)

AUTHORS: Mikhaylov, G.P., Sazhin, B.I., Fresnyakova, V.E.

TITLE: Influence of the Density of Polytrifluorochloroethylene on Dielectrical Losses (Vliyaniye plotnosti politriftorkhloretilena na dielektricheskiye poteri)

PERIODICAL: Kolloidnyy zhurnal, 1958, Vol XX, Nr 4, pp 461-464 (USSR)

ABSTRACT: The degree of crystallization of polymers has a great effect on their physical properties. The crystallinity of a substance is defined as the volumetric or weight ratio between the crystallized and amorphous parts of this substance. It is difficult, however, to determine the exact value of crystallinity. Presently, dilatometric, optic and roentgenographic methods are used, as well as the heat capacity and the nuclear magnetic resonance. In the article, the influence of the density of polytrifluorochloroethylene (F-3) on the value of the dielectrical losses is investigated with a view to determining the degree of crystallinity. In F-3, two forms of dielectrical losses of relaxation character have been established. Both are dependent on the temperature. Figure 1 shows that at a frequency of 80 kilocycles and a temperature of 78° C a maximum of the dielectric losses is observed. The data of

Influence of the Density of Polytrifluorochloroethylene on Dielectrical Losses

Figure 2 show that the value of the dielectric losses of F-3 is directly proportional to the quantity of the substance in the amorphous phase. The investigation has proved that the degree of crystallinity may be determined by measuring the dielectric losses. The method may also be used for measuring crystallinity in rubber , etc.
There are 2 graphs, 1 table, and 3 references, 2 of which are Soviet and 1 English.

ASSOCIATION: Leningradskiy politekhnicheskiy institut imeni M.I. Kalinina (Leningrad Polytechnical Institute imeni M.I. Kalinin)

SUBMITTED: April 3, 1957

1. Fluoroethylenes--Density

PRESNYAKOVA, G.A.

Classification of eroded soils. Pochvovedenie no.10:69-90 O '56.
(MLRA 10:1)

1. Pochvennyy institut imeni V.V. Dokuchaeva Akademii nauk SSSR.
(Erosion) (Soils--Classification)

PRESNYAKOVA, G. A.

Classification of eroded soils. G. A. Presnyakova. *Pochvovedenie* 1956, No. 10, 69–80.—In the discussion, P. presents comparative chem. data on soils of various stages of erosion: P, K, adsorbed bases, hydrolytic acidity, degree of satn., pH, exchange acidity, and sol. Al. — I. S. Joffe.

PRESNYAKOVA, G.

Interdepartmental conference on erosion control. Pochvovedenie no.4:99-102 Ap '56. (MLRA 9:9)
(Erosion--Congresses)

PRESNYAKOVA, G. A.

Soil Inst., Acad. Sci., Lab. of erosion (-1946-)

"Effect of 'one season' erosion upon the yield of crops"

Pochvovedeniye, No. 7, 1946

PRESNYAKOVA, G. A.

"The Influence of Soil Erosion on Agricultural Cultivation in the Podzol Zone,"

Pochvovedeniye, No. 9, 1948.

PRESNYAKOVA, G. A.

25034. PRESNYAKOVA, G. A. Rezul'taty Issledovaniy Po Vliyaniyu Sezonnoy Na Vrozhay Sel'skokozyaystvennykh Kul'tur V Podzolistoy Zone. Trudy Yubileynoy Sessii, Posvyashch Stoletiyu so dnya Rozhdeniya Dokuchayeva. M.-L., 1949, s. 456-68

SO: Letopis' No. 33, 1949

PRESNYAKOVA, G.A.

Effect of processes of water erosion on yields of farm crops in turf-podzolic soils, and ways of increasing productivity of eroded soils. Trudy Poch.inst. 40:12-108 '53. (MLRA 6:11)

PRESNYAKOVA G.A.

Soil erosion in the region of the right bank of the Oka River (collective farm "Plamia" of Moscow Province). Trudy Pochv.inst. 40:240-275 '53.
(MLRA 6:11)

(Oka valley--Erosion) (Erosion--Oka valley)

KOZLOV, V.P.; PRISNYAKOVA, G.A.

Study of soil erosion in the northeastern part of the Central Russina Upland (within the limits of the Serebriano-Prudy District of Moscow Province). Trudy Mat.inst. 40:276-303 '53. (MLRA 6:11)
(Serebriano-Prudy District--Erosion) (Erosion--Serebriano-Prudy District)

PRISNYAKOVA, Galina Aleksandrovna, Jr. Sci. Assoc
Order Badge of Honor VAN No. 10 1953

ALEKSANDROVA, I.V.; DIMO, V.N.; MURATOVA, V.S.; NOGINA, N.A.; PRESNYAKOVA, G.A.; RAZORENOVA, N.A.; TSERLING, V.V.; SHKONDE, E.I.

Second Congress of Soil Science Delegates. Pochvovedenie no.1:93-102 Ja '63. (MIRA 16:2)
(Soil research--Congresses)

PRESNYAKOVA, G.A.

BRAUDE, Izrail' D. — "Methods of forest improvement to prevent erosion"

LOPATIN, G. V. — "The intensity of water erosion on the territory of the USSR"

MESHCHERYAKOV, Yuriy A. — "The influence of movement of the crust of the earth on erosion processes"

PRESNYAKOVA, Galina A. — "Soil erosion caused by the irregular flow of ground waters and methods of combatting it"

SILVESTROV, S. I. — "On the division of territories subject to erosion in the USSR"

SOBOLEV, Sergey S. — "The principal types of soil erosion and the geographic distribution of erosion factors in the territory of the USSR"

reports to be submitted for the Intl. Association of Scientific Hydrology, Symposium on Continental Erosion, Ferl, Italy 1-6 Oct 1962
sponsored by IUGG

SOBOLEV, S.S.; PRESNYAKOVA, G.A.

Decisions of the Seventh All-Union Conference on Erosion Control.
Pochvovedenie no.9:112-117 S '61. (MIRA 14:10)
(Erosion)

PRESNYAKOVA, G.A.

Classification of alluvial soils. Pochvovedenie no.10: 71-78 O '59. (MIRA 13:2)

1. Pochvennyy institut im.V.V.Dokuchayeva AN SSSR.
(Alluvial lands) (Soils--Classification)

PRESNYAKOVA, G. A.

USSR/Soil Cultivation. Cultivation, Melioration, Erosion. J-5

Abs Jour: Ref Zhur-Biologiya, No 1, 1958, 1296.

Author : Presnyakova, G.A.
Inst :
Title : The Classification of Eroded Soils -- A Discussion.

Orig Pub: Pochvovedeniye, 1956, No 10, 69-90.

Abstract: The extent of erosion of the upper humus layer is the fundamental criterion for grouping eroded soils. It is suggested that the soil groups be distinguished on this basis: weakly, moderately, sharply, and very sharply eroded soils, as well as some subdivisions. Some classification schemes for eroded turf-peat-podzolic-argillaceous chernozems and soils eroded ordinary chernozems, and average fertile argillaceous soils are presented, as well as examples of the application in practice of this classification of eroded soils. There is a bibliography of 64 titles.

Card : 1/1 -7-

MIKHAYLOV, G.S. [Mykhailov, H.S.]; STEPANYSHINA, A.V. [Stefanyshyna, A.V.]; PRESHIKOVA, G.M.

Conditions for the splitting of oxide particles by electron bombardment with barium involved. Ukr. fiz. zhur. 8 no.11:1270-1274 N '64. (MIRA 18:9)

1. Institut radiotekhniki i elektroniki AN UkrSSR, Khar'kov.

MIKHAYLOV, G.S. [Mykhailov, H.S.]; PRONINA, I.G. [Pronina, I.H.]
AKIMOVICH, O.N. [Akymovych, O.M.]; PRESNYAKOVA, G.N.
[Presniakova, H.M.]

Exhausting effect and evaporation characteristics of metallic chromium under electron bombardment in a vacuum. Ukr. fiz. zhur. 6 no.3:412-414 My-Je '61. (MIRA 14:8)

1. Institut radiofiziki i elektroniki AN USSR, g. Khar'kov.
(Chromium)
(Vacuum apparatus)
(Sorption)

MIKHAYLOV, G.S. [Mykhailov, H.S.]; PRESNYAKOVA, G.N. [Presniakova, H.M.]; AKIMOVICH, I.N. [Akymovych, O.M.]

Superhigh vacuum obtained by means of electronically bombarded chromium. Ukr.fiz.zhur. 7 no.1:73-74 Ja '62. (MIRA 15:11)

1. Institut radiofiziki i elektrotekhniki AN UkrSSR, Khar'kov.

(Vacuum) (Chromium) (Electrons)

35099
S/185/62/007/001/009/01
D299/D302

26.2358

AUTHORS: Mikhaylov, M.S., Presnyakova, N.M., and Akymovych, O. M.

TITLE: Ultrahigh vacuum obtained by means of chromium, pulverized by electron bombardment

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 1, 1962, 73 - 74

TEXT: In an earlier investigation by the authors (Ref. 1: Ukr. Fiz. Zhurn., v. 6, no. 3, 1961, 412-413) it was shown that chromium pulverized in a high vacuum ($p \sim 10^{-4} - 5 \cdot 10^{-8}$ mm Hg), acts like a sorbent (getter), almost as powerful as titanium. In the present investigation, the sorbent properties of chromium in an ultrahigh vacuum ($p \lesssim 5 \cdot 10^{-8}$ mm Hg) are studied. The results of Ref. 1 (Op. cit.) cannot be directly extrapolated to such low pressures. The experimental apparatus (lamp and oil pump [illegible]-40 (MM-40)) was very similar to that described in Ref. 1 (Op.cit.). The experimental lamp was heated for 3 hours before taking the measurements; during that time, the pressure was reduced to $\sim 10^{-6}$ mm Hg. Then the chro-

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mium was pulverized by electron bombardment at V_a = 500 v and I_a = 100 milliamp. It was found that by pulverization of the chromium, a pressure as low as 2 - $5 \cdot 10^{-9}$ mm Hg could be easily obtained. This shows the fairly high rate of evacuation which the chromium develops during the pulverization process. It was estimated that chromium evacuates approximately $5 \cdot 10^2$ liters of air per second, at a pressure of $2 \cdot 10^{-9}$ mm Hg. The experimental lamps were either soldered to the vacuum pump or connected to it by a valve. In the soldered lamps, the pressure could be further reduced, to $\sim 5 \cdot 10^{-10}$ mm Hg, by additional pulverization of chromium. As in Ref. 1 (Op.cit.) the growth of Cr_2O_3 crystals was observed during the experiments; these crystals were not destroyed by the electron bombardment and the high temperature. The oxygen content of the chromium was $1 \cdot 10^{-3}$ weight percent. In conclusion, the observed "self-purification" effect of chromium, indicates the feasibility of using ordinary chromium with oxygen impurities, for producing an ultrahigh vacuum ($p \sim 5 \cdot 10^{-10}$ mm Hg) by electron bombardment of the chromium. There are 1 figure and 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc.

Card 2/3

Ultrahigh vacuum obtained by means ... S/185/62/007/001/009/01
D299/D302

ASSOCIATION: Instytut radiofizyky ta elektrotekhniky AN UkrSR (Institute of Radiophysics and Electrotechnics of the AS UkrSSR), Kharkiv

SUBMITTED: July 17, 1961

Card 3/3

X

PRESNYAKOV, I.I.; SHVYRYAYEV, Yu.T., red.izd-va; IYERUSALIMSKAYA, Ye., tekhn. red.

[Safety methods in prospecting for building materials and engineering-geology]Bezopasnye sposoby razvedki stroitel'nykh materialov i inzhenerno-geologicheskikh izyskanii. Moskva, Gosgeoltekhizdat, 1962. 110 p. (MIRA 16:2)
(Prospecting--Safety measures)

PRESNYAKOV, I.R., master; KHAR'KOV, V.V., brigadir

How we organized the work at an automatic shop. Elek. i tepl. tiaga 3 no.3:13-15 Mr '59. (MIRA 12:5)

1.Teplovoznoye depo Liski Yugo-Vostochnoy dorogi.
(Diesel locomotives--Maintenance and repair)

SKOLUBOVICH, G.V.; PRESNYAKOVA, K.P.

Results of epidemic hepatitis control in Blagoveshchensk. Zhur. mikrobiol.,epid. i immun. 41 no.5:120-125 My '64.

(MIRA 18:2)

1. Amurskaya oblastnaya sanitarno-epidemiologicheskaya stantsiya, Blagoveshchenskaya gorodskaya sanitarno-epidemiologicheskaya stantsiya i Blagoveshchenskiy meditsinskiy institut.

L 8410-65 EWT(1)/EWA(b) Pa-4 AMD JK

ACCESSION NR: AP4039937 S/0016/64/000/005/0120/0125

AUTHOR: Skolubovich, G. V.; Presnyakova, K. P. B

TITLE: The fight against epidemic hepatitis in Blagoveshchensk

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 5, 1964, 120-125

TOPIC TAGS: hepatitis (Botkin's disease), epidemic control, Blagoveshchensk, foci investigation method, gamma-globulin mass vaccination

ABSTRACT: The present study analyzes epidemic hepatitis morbidity rates for Blagoveshchensk from 1953 to 1961 and also analyzes the effectiveness of various control measures. The number of Botkin's disease cases per 10,000 of population was 10.8% in 1953, increased to 62.7% in 1959, and decreased to 20% in 1961. The sharp decrease is attributed to the development of a complex method of investigating Botkin's disease foci. Forms fruste and prodromal cases of Botkin's disease could be detected with the improved early diagnosis methods and necessary control measures were taken. Hospital stations played

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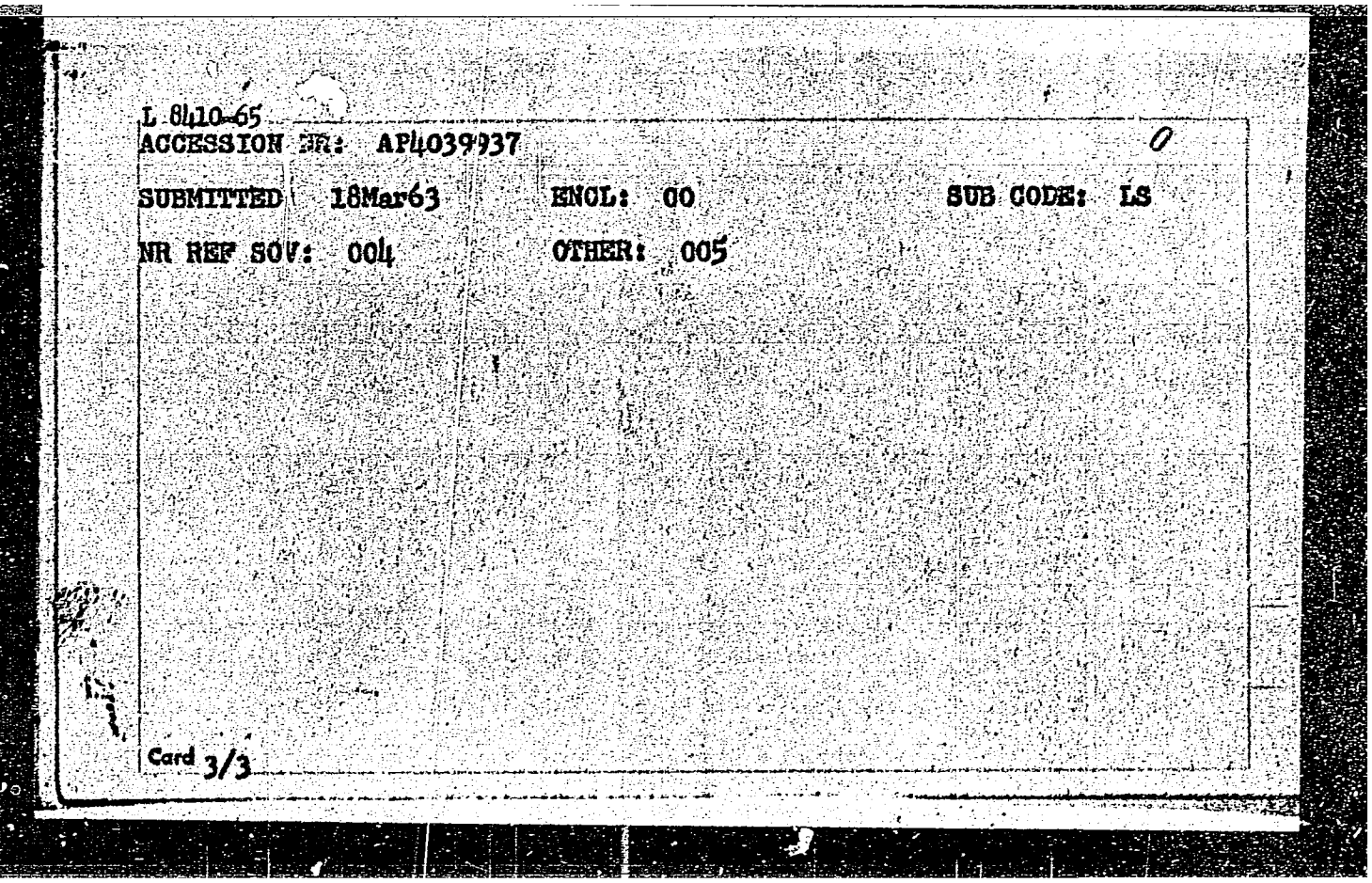
L 8410-65
ACCESSION NR: AP4039937

an important role in organizing procedures for improved early diagnosis, tracing exposed persons, and providing hospital care and daily examinations for persons displaying any suspicious symptoms. The disinfection methods for Blagoveshchensk were based on the assumption that fecal-oral, parenteral, and airborne routes may all be responsible for hepatitis transmission. A mass gamma-globulin immunization program introduced in 1959 was particularly effective for children who had been exposed and hepatitis incidence for this group was decreased to one-sixth. The results of the hepatitis control program in Blagoveshchensk indicate that a successful campaign against hepatitis can be waged with improved foci investigating methods and facilities and with effective control measures. Orig. art. has: 2 tables.

ASSOCIATION: Amurskaya oblastnaya sanitarno epidemiologicheskaya stantsiya (Amur Oblast Sanitary Epidemiological Station); Blagoveshchenskaya gorodskaya sanitarno epidemiologicheskaya stantsiya (Blagoveshchensk Municipal Sanitary Epidemiological Station); Blagoveshchenskiy meditsinskiy institut (Blagoveshchensk Medical Institute)



L 8410-65
ACCESSION NR: AP4039937 0

SUBMITTED 18Mar63 ENCL: 00 SUB CODE: LS

NR REF SOV: 004 OTHER: 005

Card 3/3

VAYNSHTEYN, L.; OPYKHTIN, V.; PRESNYAKOV, L.

Excitation of alkali metal atoms. Zhur.eksp. i teor.fiz. 47 no.6:2306-2312 D '64. (MIRA 18:2)

1. Fizicheskiy institut imeni Lebedeva AN SSSR.

PRESNYAKOV, L., SOBELMAN, I.I., VAYNSHTEYN, L.A.

One model for calculation of excitation cross sections for atoms.

Report submitted to the Third Intl. Conference on the Physics of Electronic and Atomic Collisions, London, England 22-26 July 1963

PRESNYAKOV, L.B.

Conference on the use of ultrasonics in the food industry and agriculture at the Central Chernozem Economic Council. Biul.tekh.-ekon. inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. 17 no.7:83-84 Jl '64. (MIRA 17:10)

PRESNYAKOV, L.B.

Economic activity of voluntary economic bureaus in the enterprises of the Central Chernozem Economic Council. Biul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. 18 no.3:49-50 Mr '65. (MIRA 18:5)

L 49456-65 EWT(m) Pe5 DIAAP

ACCESSION NR: AT5009880 UR/2504/64/030/000/0236/0252

8
11
B+1

AUTHOR: Presnyakov, L. P. 19

TITLE: Inelastic collisions in the quasi-classical approximation

SOURCE: AN SSSR. Fizicheskiy institut. Trudy, v. 30, 1964. Fizicheskaya optika, 236-252

TOPIC TAGS: inelastic collision, quasiclassical approximation, parametric method, collision cross section, transition probability

ABSTRACT: The article deals with an approximate solution of the system of equations for transition amplitudes in quasi-elastic collisions (1.3):

$$i\frac{da_n}{dt}=\frac{\lambda}{v}\sum_m V_{nm}(x)\,e^{i\frac{\omega_{nm}}{v}x}\,a_m(x),\qquad \lambda V_{nm}=\int d\vec{r}\,\Phi_n^*(\vec{r})\,\Phi_m(\vec{r})\,V(\vec{r},x),\quad x=vt,\ \omega_{nm}=\varepsilon_n-\varepsilon_m$$

(the notation is standard), by a method developed by the author previously (with L. A. Vaynshteyn and I. Sobel'man, ZhETF v. 43, 518, 1962). It is shown that this method, for which some advantages over other approximate methods are claimed, can be generalized without spectial difficulty to the case when the number of equations

Card 1/2

L 49456-65

ACCESSION NR: AT5009880

in (1.3) is arbitrary. The solution consists of a transition to a new unknown function, similar to the transition from the S matrix to the R matrix in general scattering theory, followed by an analysis of the two-level approximation, which is then extended to an arbitrary number of levels. The excitation of the s → p transition in an atom is calculated by way of an example. "The author thanks N. L. Vaynshteyn and I. L. Sobel'man for a discussion of the work and useful advice." Orig. art. has: 96 formulas.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR (Physics Institute, AN SSSR)

SUBMITTED: 00 ENCL: 00 SUB CODE: NP

NR REF SOV: 008 OTHER: 006

Card 2/2 CC

PRESSMAN, L.P., prof., red.; FRANTSEV, V.I., doktor med. nauk, red.; LEONENKO, A.V., red.; SMIRNOV, B.V., red.; SHUSTER, M.A., kand. med. nauk, red.; ZAVRAZHIN, N.M., red.; URSOV, I.G., kand. med. nauk, red.

[Problems of clinical medicine and occupational pathology] Voprosy klinicheskoi meditsiny i profpatologii. Moskva, 1965. 143 p. (MIRA 18:4)

1. Moscow. Oblastnoy nauchno-issledovatel'skiy klinicheskiy institut.

BLAGOVESHCHENSKIY, A.V.; DAVYDOVA, O.L.; PRESNYAKOVA, M.A.

Biochemical characteristics of the crowfoot family. Biul.Glav.bot.sada no.14:29-33 '52. (MLRA 6:5)

1. Glavnyy botanicheskiy sad Akademii Nauk SSSR. (Ranales) (Plants--Chemical analysis)

NEGINA, V.R.; ZAMYATNINA, V.N.; YEGOROVA, A.A.; Prinimali uchastiye: PRESNYAKOVA, M.A.; CHIKISHEVA, L.S.; SHEVCHENKO, P.P.; TRUBIN, I.A.; MAL'KOV, V.I.

Determination of chlorine, arsenic, and phosphorus impurities in some organic materials by the activation method. Radiokhimiia 5 no.2:270-272 '63. (MIRA 16:10)

MEGINA, V.R.; LAMYATHINA, V.N.; [illegible], N.A.; CHIKISHEVA, I.A.

Radioactivation method for determining the total of rare earth elements, manganese, nickel, copper, antimony, arsenic, molybdenum, cadmium, and gold in lithium compounds. Radiokhimiia 3 no.4:473-477 '61. (MIRA 14:7)
(Radioisotopes--Analysis)

PRESNYAKOVA, O.E.

3

"The dynamic method of investigation of the structure and specific surface of adsorbents." V. T. Bykov and O. E. Presnyakova. *Doklady Akad. Nauk S.S.S.R.* 112, 077-80(1957).—The dynamic adsorption by porous adsorbents may be divided into 2 periods: before and after exceeding the mol. adsorption. During the former, adsorption proceeds at a steady rate, during the latter at a decreasing rate, detd. by the inner diffusion, which depends on the structure of the adsorbent. These differences in the adsorption rates "before" and "after" were used as a basis for the investigation of the structure of adsorbents, with the use of "mol. test rods," first proposed by Dubinin (*Vestnik Akad. Nauk S.S.S.R.* 20, 107(1950)), modified for use under dynamic conditions at soln. flow velocities that assured the reaching of adsorption equil. The substances to be adsorbed (phenol, benzyl alc., and thymol, "the mol. testing rods") were passed in a CCl_4 soln. through a chromatographic column filled with the adsorbent, at a rate of 10–15 ml./hr. The unadsorbed material was detd. in the effluent after passing every 0.5 ml. through the column. The results were plotted and the curves for adsorption of phenol and thymol on various adsorbents had a characteristic shape, which showed that the method can be used for decision regarding the pore structure of the adsorbent, and to find its specific surface in very limited time. The total test required 2-4 hrs. and furnished a quant. expression on the characteristic of the pore structure from 2 adsorption values, "before" and "after" passing through.

W. M. Sternberg

PRESNYAKOVA, O.Ye.

Dynamic method for the study of the structure and specific surface area of the natural sorbents of the Far East. Trudy DVFAN SSSR. Ser. khim. no.3:102-108 '58. (MIRA 11:5)
(Sovet Far East--Sorbents)

PRESNYAKOVA, O. Ye.

"Use of the Dynamic Method of Investigating the Structure and Specific Surfaces of Far Eastern Natural Sorbents," p 102, Natural Sorbents of the Far East, Moscow, Izd-vo AN SSSR, 1958.

PRESNYAKOVA, O. YE.

"Dynamic Method for Investigating Structure and Specific Surface of Adsorbents," by V. T. Bykov and O. Ye. Presnyakova, Far East Affiliate, Academy of Sciences, USSR, Vladivostok, Doklady Akademii Nauk SSSR, Vol 112, No 4, 1957, pp 677-680

The adsorption of porous bodies under dynamic conditions may be divided into two periods: "before passage" and "after passage." The "before passage" period is characterized by a constant rate of adsorption and is fundamentally a monomolecular process. The "after passage" period is characterized by a decreased rate of adsorption and the introduction of the factor of internal diffusion which depends on the structure of the adsorbent. Therefore, by investigating dynamic adsorption, it is possible to get a representation of the structure of the adsorbent.

The authors used a method of "molecular probing" under dynamic conditions employing CCl_4 solutions of high molecular compounds (phenol, benzyl alcohol, 5-methyl-2-isopropyl-phenol). After passage through the adsorbent, the concentration of the solution was measured on an interferometer and corresponding curves constructed. The system must be in a state of adsorption equilibrium.

Sum. 1360

PRESNYAKOVA, O. YE.

Using the method of "molecular probing" under dynamic conditions permits the following:

1. Associating the kinetic process of sorption with the porous structure of the adsorbent.

2. Using the simple method of dynamic experiments and measuring the concentration of the exit stream interferometrically or refractometrically.

3. Obtaining a representation of the structure type of the adsorbent and determine its specific surface in a short period of time, since the dynamic method takes only 2-4 hours.

4. Obtaining a quantitative representation of the characteristics of the porous structure as congruent adsorption magnitudes "before passage" and "after passage." (U)

Sum. 1360

BYKOV, V.T.; PRESNYAKOVA, O.Ye.

Dynamic method of determining the specific surface of adsorbents by means of adsorption from a solution stream. Kin.i kat. 3 no.5:784-787 S-O '62. (MIRA 16:1)

1. Dal'nevostochnyy filial Sibirskogo otdeleniya AN SSSR.
(Adsorption) (Sorbents)

PRESNYAKOVA, O. Ye.

RADUSHKEVICH, L.V.

28(6) p3 PHASE I BOOK EXPLOITATION SOV/1408

Soveshchaniye po metodam issledovaniya struktury vysokodispersnykh i poristykh tel. 2d, Leningrad, 1956.

Metody issledovaniya struktury vysokodispersnykh i poristykh tel; trudy vtorogo soveshchaniya (Methods of Investigating the Structure of Highly Disperse and Porous Bodies; Transactions of the Second Conference) Moscow, Izd-vo AN SSSR, 1958. 294 p. 2,000 copies printed.

Sponsoring Agencies: Akademiya nauk SSSR. Institut fizicheskoy khimii and Institut khimii silikatov.

Resp. Ed.: Dubinin, M.M., Academician; Ed. of Publishing House: Parumova, L.L.; Tech. Ed.: Markovich, S.M.

PURPOSE: This book is intended for scientists, teachers and advanced students interested in the structural analysis of highly disperse and porous bodies.

COVERAGE: This collection contains reports by members of various Soviet institutions of higher education: Institute of Physical Chemistry, AS UkrSSR; Institute of Chemistry, AS Georgian SSR; Far Eastern Branch, AS USSR; Georgian Scientific Research Institute for Petroleum; State Optical Institute; Leningrad Technological Institute; Moscow and Leningrad State Universities; Far Eastern Polytechnic Institute; "Agrophysical" Institute, and others. Introductory remarks were made by Professor N.A. Toropov, Director of the Institute of Silicate Chemistry. Apart from reports under the four subject divisions (see Table of Contents), the collection includes discussions, considerations and proposals adopted at the close of the conference.

TABLE OF CONTENTS:

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PRESNYAKOVA, O.Ye.

BYKOV, V.T.; PRESNYAKOVA, O.Ye.

A dynamical method in the investigation of the structure and specific surface area of adsorbents. Dokl. AN SSSR 112 no.4:677-680 F '57. (MLRA 10:4)

1. Dal'nevostochnyy filial Akademii nauk SSSR, Vladivostok. Predstavleno akademikom M.M.Dubininym.
(Adsorbents)

LILICH, L.S.; PRESNIKOVA, O.Ye.

Reaction of halogens and intermediate halides with certain organic molecules in CCl_4 solutions. Uch.zap.Len.un.163:3-14 '53. (Halides) (MLRA 9:6)

BYKOV, V.T.; PRILSNYAKOVA, O.Ye.

Dynamic method used for the determination of the values of the specific surface of adsorbents from solution stream. Soob. DVFAN SSSR no.19:47-50 '63. (MIRA 17:9)

1. Dal'nevostochnyy filial imeni V.L. Komarova Sibirskogo otdeleniya AN SSSR.

PRESNYAKOV, P.D.

TURICHIN, Afroim Moiseyevich; NOVITSKIY, Petr Vasil'yevich; PRESNYAKOV, P.D.; ZABRODINA, A.A., tekhnicheskiy redaktor.

[Wire-wound transformers and their use in engineering] Provolochnye preobrazovateli i ikh tekhnicheskoe primenenie. Moskva, Gos.energ. izd-vo, 1957. 170 p. (MIRA 10:11)
(Electric transformers)

PRESNYAKOV, P.D.

Call Nr: AF 1154953

AUTHORS: Turichin, Afroim M. and Novitskiy, Petr V.

TITLE: Electric Resistance Wire Strain Gages and their Practical Application (Provolochnyye preobrazovateli i ikh tekhnicheskoye primeneniye)

PUB. DATA: Gosudarstvennoye energeticheskoye izdatel'stvo, Moscow-Leningrad, 1957, 171 pp., 6000 copies

ORIG. AGENCY: None given

EDITORS: Editor: Presnyakov, P.D.; Tech.Ed.: Zabrodina, A.A.

PURPOSE: The book is intended for engineers and scientific workers who use instruments with strain gages for measuring deformations, stresses, and other mechanical quantities.

COVERAGE: The authors state that this book fills an urgent need for a systematic presentation of the theoretical basis and practical use of electric resistance strain gages, together with design and experimental data. The need is said to have arisen as a result of the greatly increased number of engineers, technicians, and scientific workers making use of such gages. Chapters 1, 2, 3, 4, 5, and 7,

Card 1/6

Call Nr: AF1154953

Electric Resistance Wire Strain Gages and their Practical Application (cont)

as well as Sections 6-3 and 6-4, were written by Turichin, A.M. Chapter 6, except for Sections 6-3, 6-4, and 6-9, were written by Novitskiy, P.V. Fetisov, M.M., is the author of Section 6-9. There are 71 bibliographic references, 61 of which are USSR, 6 English, and 4 German.

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Call Nr: AF 1154953

Electric Resistance Wire Strain Gages and their Practical Application (cont)

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Electric Resistance Wire Strain Gages and their Practical Application (cont)

Card 4/6

Electric Resistance Wire Strain Gages and their Practical Application (cont)

Call Nr: AF 1154953

Electric Resistance Wire Strain Gages and their Practical Application (cont)

AVAILABLE: Library of Congress

Card 6/6

S/185/61/006/003/006/010
D208/D302

9,4250 (1003, 1140, 1385

AUTHORS: Mykhaylov, G.S., Pronina, I.G., Akymovych, O.M. and Presnyakova, G.M.

TITLE: Pumping action of metallic chromium and a special feature of its vaporization in a vacuum by electron bombardment

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 6, no. 3, 1961, 412-414

TEXT: In modern sorption pumps, chemically very active metals (so-called "getters") are used as sorption agents, especially titanium. The use of other metals, like iron, nickel, cobalt, and chromium, as sorbents would be advantageous. The author experimented with iron, chromium and cobalt. The experiments with iron and cobalt did not lead to conclusive results, whereas in the case of chromium, an intensive pumping action of the chromium vapor was established as well as regularly condensed surfaces. The main results of the experiments with chromium are given in this article.

Card 1/3

Pumping action...

The distance cathode-specimen was approximately 1.5 mm. The high vacuum ($\sim 10^{-6}$ mm Hg) was produced by an oil pump of type MM - 40. During the pumping the lamps were always heated at 400°C for an hour. For purification, the metal electrodes were heated to very high temperatures by a current or by electron bombardment. The chromium specimen was he[illegible]d by electron bombardment to near melting point (≈1800°C). At V_a = 300 v and I_a = 100 mA the specimen attained temperatures of 50 to 100°C below melting point. At that time intensive chromium-vaporization took place, accompanied by an increase in the vacuum from 10^{-6} mm Hg to $5 \cdot 2\ 10^{-7}$ mm Hg (in both the lamp and the pump). During the experiment, the formation of crystals of Cr_2O_3 was observed on the surface of the chromium specimen; these crystals were not destroyed by the electron bombardment and constitute a special feature of the process. The growth of these crystals on the pulverized surface shows that the oxygen, present in chromium as an impurity, remains (during the vaporization) on the specimen in the form of an oxide. This is apparently the reason for the pumping effect of the chromium used (with approximately 10^{-3} weight percent oxygen). The crystal growth on the chromium specimens show

Card 2/3

Pumping action...

that it is possible to purify chromium from oxygen traces by vacuum distillation at a very high vacuum. The intensive pumping effect of chromium is not only important for using chromium instead of titanium in sorption pumps, but also as an indication that chromium cannot be refined in a vacuum of the order of 10^{-5} to 10^{-6} mm Hg [Abstracter's note: The same conclusion was reached with respect to chromium and aluminum, by Ahonenko et al., as reported in this journal, pp 390-393.] Corresponding member AS UkrSSR, O. Ya. Usykov is thanked for his interest in the above work. There are 4 figures and 6 Soviet-bloc references.

ASSOCIATION: Instytut radiofizyky ta elektroniky AN USSR (Institute of Radiophysics and Electronics AS UkrSSR), Khar'kov

SUBMITTED December 23, 1960

S/076/62/036/009/003/011
B101/B102

AUTHORS: Anikin, A. G., Dugachcva, G. M., Presnyakova, V. M., and Bykova, S. P.

TITLE: Zone melting of methyl methacrylate

PERIODICAL: Zhurnal fizicheskoy khimii, v. 36, no. 9, 1962, 2074 - 2075

TEXT: The use of zone melting to purify low-melting organic substances is described by the example of methyl methacrylate (crystallization temperature -48.9°C) with an initial purity of 99.2%. The zone melting was performed in a tinplate bath 80 mm long inside a Dewar flask containing liquid nitrogen, by heating a nichrome spiral of 0.5 mm diameter, heating current 4 amp with a shift of 1 cm/min. A degree of purity amounting to 99.9% was attained after five passages, and 99.95% after ten passages. The cryoscopic test for purity of the samples has been described earlier (Dokl. AN SSSR, 119, 937, 1958). Thus, it is established that organic substances crystallizing below 0°C can be purified by zone melting. There are 2 tables.

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S/076/62/036/009/009/011
B101/B102

Zone melting of ...

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: February 19, 1962

Card 2/2

ANIKIN, A.G.; GERASIMOV, Ya.I.; DUGACHEVA, G.M.; PRESNYAKOVA, V.M.

Refining of organic monomers by the method of zonal fusion.
Plast. massy no.12:13-17 '62. (MIRA 16:1)
(Monomers) (Crystallization)

S/191/62/000/012/002/015
B101/B186

AUTHORS: Anikin, A. G., Gerasimov, Ya. I., Dugacheva, G. M., Presnyakova, V. M.

TITLE: Purification of organic monomers by zone refining

PERIODICAL: Plasticheskiye massy, no. 12, 1962, 13-17

TEXT: A general survey is given on the theoretical principles of zone refining, based predominantly on non-Soviet papers. The applicability of this refining method to low-melting organic substances is discussed and the practical results are given that were obtained in the zone melting of methyl methacrylate and styrene. Zone refining was performed in an 80 mm tin plate trough immersed in liquid nitrogen. The sample was heated with a 0.5 mm nichrome coil (amperage 4 a), the molten zone being 8-9 mm wide and the rate of zone travel 1 cm/min. The initial degree of purity of methyl methacrylate of 99.2 mole-% was improved to 99.86 mole-% by remelting it 5 times and to 99.95 mole-% by remelting it 10 times. In styrene, the initial degree of purity of 98.85 mole-% improved to 99.7 mole-% when it was remelted 5 times. Working at low

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temperatures requires the careful exclusion of atmospheric moisture. There are 5 figures and 2 tables. The most important English-language references are: J. H. Beynon, R. A. Saunders, Brit. J. Appl. Phys., 11, 128 (1960); John S. Ball, R. V. Helm, C. R. Ferrin, Petr. Engr., 30, no. 13, C-36 (1958).

VILKOV, L.V.; AKISHIN, P.A.; PRESNYAKOVA, V.M.

Electron diffraction study of the structure of molecules of trivalent nitrogen compounds: dimethylformamide and N-methylpyrrole. Zhur.strukt.khim. 3 no.1:5-9 Ja-F '62. (MIRA 15:3)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Nitrogen compounds) (Electron diffraction examination)

1. NIKOLAYEVA, N. V.; TRESNYAKOVA, V. N.

2. USSR (600)

4. Compounds, Complex

7. Polarographic study of the kinetics of exchange reactions of complex compounds in solutions of electrolytes, Dokl. AN SSSR, 87, No. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

PRESNYAKOVA, Z.I.

Spore-pollen complexes of lower Cretaceous sediments in the Duzlak region. Trudy Geol.inst.Dag.fil. AN SSSR 1:104-118 '57. (MIRA 14:9)

(Daghestan--Palynology)

PRESPERIN, V.; KUL'CHITSKIY, L.A.

Yield curves of fast photoneutrons from C^{12} and Al^{27}. Zhur.eksp.i teor.fiz. 41 no.1:60-63 Jl '61. (MIRA 14:7)

1. Leningradskiy fiziko-tekhnicheskiy institut AN SSSR.
(Neutrons) (Carbon—Isotopes) (Aluminum—Isotopes)

21.5000,24.6700,24.6800,
24.6810,16.8100,24.2600

76964
SOV/56-37-6-4/55

AUTHORS: Kul'chitskiy, L. A., Presperin, V.

TITLE: Fast Photoneutrons From Be^9, C^{12}, and Al^{27}

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 37, Nr 6, pp 1524-1529 (USSR)

ABSTRACT: An investigation was carried out of the angular distribution of photoneutrons with energies above 10 mev emitted by Be^9, C^{12}, and Al^{27} targets under irradiation by 88 mev peak energy bremsstrahlung. The registration and estimation of the energy was done by the recoil proton method (cf. V. P. Chizhov, L. A. Kul'chitskiy, Zhur. eksp. i teoret. fiz., 36, 345, 1959). The background during the determination of the angular distributions and the energy distributions was $\leqslant 3\%$ and $\leqslant 5\%$ respectively. The angular distribution for each exhibited quite a strong shift in the maximum in the direction of small angles (the maxima were located at $\sim 60^\circ$). The comparison of the angular distribution

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Fast Photoneutrons From Be^9, C^{12}, and Al^{27}

76964
SOV/56-37-6-4/55

data with the quasi-deuteron model of K. Dedrick (cf. Phys. Rev., 100, 58, 1955) gave a qualitative accord between them. The theoretical calculations based on the direct resonance photoeffect without compensation for magnetic interactions did not accord with the experimental results. However, in the authors' opinion, this fact could not completely exclude the possibility of the effect due to the direct resonance absorption of γ-quanta. There is 1 schematic diagram of the setup; 5 graphs; and 15 references, 8 Soviet, 1 Canadian, 6 U.S. The 5 most recent U.S. references are: A. C. Odian, P. C. Stein, A. Wattenberg, B. T. Feld, R. Weinstein. Phys. Rev., 102, 837, 1956; M. Q. Barton, J. H. Smith. Phys. Rev., 110, 1143, 1958; P. S. Baranov, V. I. Gol'danskii, V. S. Roganov. Phys. Rev., 109, 1801 1958; C. Whitehead, W. R. McMurray, M. J. Aitken, N. Middlemas; C. H. Collie. Phys. Rev., 110, 941, 1958; L. Allen. Phys. Rev., 98, 705, 1955.

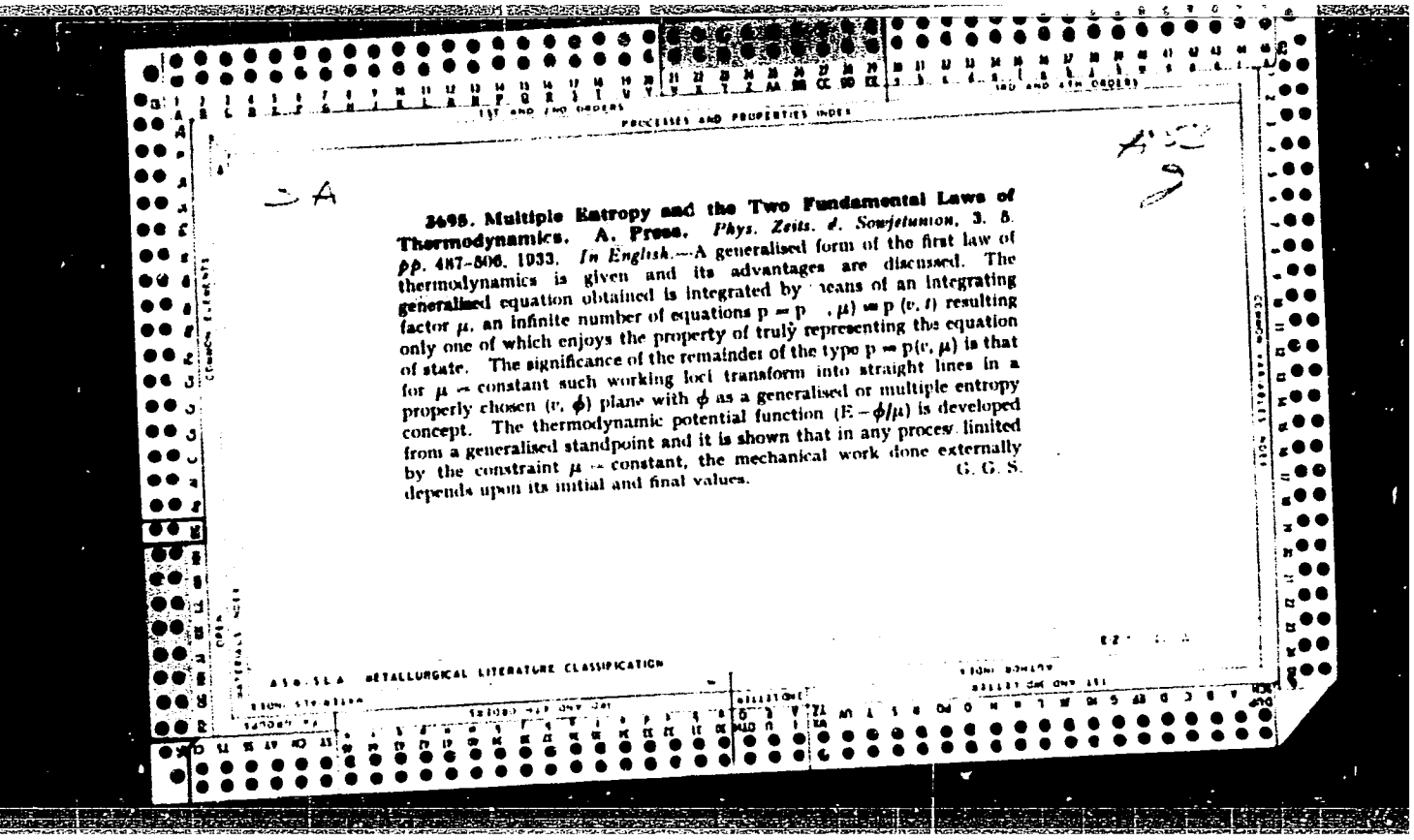
Card 2/3

Fast Photoneutrons From Be^9, C^{12}, and Al^{27} 76964
SOV/56-37-6-4/55

ASSOCIATION: Leningrad Phys.-Tech. Inst. Acad. Sciences USSR (Leningradskiy fiziko-tekhnicheskiy institut, Akademii nauk SSSR)

SUBMITTED: July 2, 1959

Card 3/3



3498. Multiple Entropy and the Two Fundamental Laws of Thermodynamics. A. Press. *Phys. Zeits. d. Sowjetunion*, 3. 5. pp. 487–506. 1933. *In English.*—A generalised form of the first law of thermodynamics is given and its advantages are discussed. The generalised equation obtained is integrated by means of an integrating factor μ, an infinite number of equations $p = p(\ , \mu) = p(v, t)$ resulting only one of which enjoys the property of truly representing the equation of state. The significance of the remainder of the type $p = p(v, \mu)$ is that for μ = constant such working loci transform into straight lines in a properly chosen (v, ϕ) plane with ϕ as a generalised or multiple entropy concept. The thermodynamic potential function $(E - \phi/\mu)$ is developed from a generalised standpoint and it is shown that in any process limited by the constraint μ = constant, the mechanical work done externally depends upon its initial and final values. G. G. S.

PRESNYAKOV, P.V.

Fertilizing mother seeds of sugar beets and transplants in the irrigated beet-growing area. Sakh.prom. 34 no.2:62-66 F '60. (MIRA 13:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sakhranoy svekly.
(Kirghizistan--Sugar beets) (Fertilizers and manures)

PRESNYAKOV, P.V.

COUNTRY : [illegible]
CATEGORY : [illegible]
ABS. JOUR. : Khimiya, No. [illegible], 1959, No. 15262
AUTHOR : [illegible], P.V.
INST. :
TITLE : Characteristics of Sugar Beet Growth and Beet Transplantings in Conditions of Irrigation
ORIG. PUB. : [illegible]
ABSTRACT : The characteristics of sugar beet and seedling growth are described on the basis of many years investigations of the Frunze experimental station and the Kirgiz experimental selection station conducted in the conditions of field experiments with irrigation. Intensive growth of the beet leaf mass continues to the middle of August. The main beet root in the fork phase reaches a 13.5 cm depth, in the phase of one to two pairs of leaves 33 cm and at the end of

CARD: 1/2

COUNTRY :
CATEGORY :

ABS. JOUR. : RZhBiol., No. 4,1959, No. 15762

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : vegetation reaches 2.5 m depth and with deep level of ground waters as much as 3.5 m. The average daily increments of roots amount to 3 - 7 in June, 8 - 12 in July, 7 - 10 in August, 3 to 5 grams in September in case the crop level is 600 to 700 c/h. On individual days the daily root gains amount to 18 to 22 grams. The total carry out of nutritive substances amounts to: 180 - 220 kg/h of N, 50 to 60 of P and 300 to 400 of K. With an average plant vegetation period of 117 days, 29 days fall in

Card: 2/3

COUNTRY :
CATEGORY :

ABS. JOUR. : RZhBiol., No. [illegible], 1959, No. 15762

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : the period from planting to the bud phase, 25 from the bud to full bolting, 25 from bolting to flowering and 38 days from flowering to harvesting. Of the total quantity of dry above ground mass 40 to 50 % falls on seed, 35 to 40 % on stalk and 10 to 15 % on leaves. With a harvest of 30 to 40 c/h the uptake of nutritive substances by transplants amounts to 130 - 140 kg/h of N, 50 to 60 of P and about 300 of K.

-- M.I. Orlovskiy

Card: 3/3

PRESNYAKOV, P.V.

COUNTRY	:	USSR
CATEGORY	:	Cultivated Plants. Commercial. Oleiferous. Sugar-Bearing.
ABS. JOUR.	:	RZhBiol., No. 4, 1959, No. 15764
AUTHOR	:	Presnyakov, P.V.
INST.	:	
TITLE	:	Effect of Fertilizer and Cultivation Density of Maternal Sugar Beet on the Crop of Beet Seeds and Their Productive Qualities.
ORIG. PUB.	:	V sb.: Vopr. [illegible] sokhoz. [illegible] v KirgSSR. Frunze, 1958, 124-133
ABSTRACT	:	The experiments were carried in 1939 -1950 at the Frunze experimental station and the Kirgiz experimental station in field conditions of irrigated agriculture. It was determined that the conditions of cultivating the maternal beet had a drastic effect on the subsequent crop of seeds and factory beets. The influence of supplementary placement of phosphorus fertilizers under the maternal beet and transplants was especially effective with respect to consequences in factory generation in relation both to raising the crop yield and

Card: 1/2

L 18527-66 EWT(m)/EWA(h)

ACC NR: AP6010229 SOURCE CODE: CZ/0038/65/000/004/0144/0144

AUTHOR: Bem, Pavel; Habanec, Josef--Gabanets, Y.; Karban, Oldrich; Nemec, Jan-- Nemets, Y.; Presperin, Vlastislav

CRG: Institute of Nuclear Research, CSAV, Rez (Ustav jaderneho vyzkumu CSAV)

TITLE: Measurement of the angular distribution of the polarization of protons in the reaction C-12 (p, p) C-12 in the energy region of 6.0 - 6.8 Mev

SOURCE: Jaderna energie, no. 4, 1965, 144

TOPIC TAGS: proton polarization, elastic scattering, angular distribution, cyclotron, silicon, carbon, particle detector, particle accelerator target

ABSTRACT: INR Report No. 1064/64, published in Jaderna Energie only as Czech and Russian summaries (modified): The angular distribution of the proton polarization during elastic scattering was measured at six values of the energy in the region of 6.0-6.8 Mev. The energy source was the INR 120-cm cyclotron at Rez. The energy of the protons was reduced by means of aluminum and carbon films. The degree of polarization of the scattered protons was determined by the right-left asymmetry of the secondary scattering on the carbon target of the analyzer. The particles were registered by silicon detectors with a surface barrier. The results of the

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L. 18527-66
ACC NR: AP6010229

work substantially supplement the individual data of other authors. At the present time the obtained data are being analyzed on the basis of the characteristics of the levels of the N-13 nuclei. [JPRS]

SUB CODE: 20 / SUBM DATE: none

Card 2/2 UDC: 539.171.018: 539.172.12: 546.26.02